

REMARKS

The Applicants have carefully studied the outstanding Office Action. The present response is intended to be fully responsive to the rejection raised by the Office Action and is believed to place the application in condition for allowance. Further, the Applicants do not acquiesce to any of the Office Action rejections not particularly addressed. Favorable reconsideration and allowance of the application is respectfully requested.

Claimed Invention

The application presently includes 44 claims. Of these, claims 1, 26 and 29 are in independent format. Each of these independent claims includes an element or combination of elements directed to (i) a plurality of selectable modular applications, each of which has an associated function that processes data corresponding to at least one vehicle operating characteristic obtained via an on-board unit, and (ii) an interface that allows selection among the plurality of modular applications to create a customized system.

For instance, claim 1 includes "a plurality of modular applications, each application having an associated function that processes the data corresponding to said at least one vehicle operating characteristic obtained via the on-board unit; and an interface that allows selection among the plurality of modular applications to create a customized system." Claim 26, as amended, includes "at least one on-board unit interface to support communication between the on-board unit and at least one device outside the on-board unit, the at least one device comprising a plurality of selectable modular applications, each application having an associated function that processes data corresponding to at least one vehicle operating characteristic obtained via the on-board unit." And claim 29 includes (i) obtaining data corresponding to at least one vehicle operating characteristic from an on-board unit on the vehicle; (ii) providing a plurality of modular applications that are

selectable by the user to create a customized system; and (iii) processing the data corresponding to at least one vehicle operating characteristic obtained via the on-board unit according to at least one function associated with at least one selected modular application.

All of the claims that depend from independent claims 1, 26 and 29, in turn, necessarily incorporate the elements of the claims from which they depend. Thus, these dependent claims include the combination of elements directed to (i) and (ii) above.

Summary of Allowable Claims and Rejections

From the outset, the Applicants thank the Examiner for noting that claims 10, 11, 33 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. The Applicants also note the Examiner's statement of reasons for the indication of allowable subject matter, and reserve the right to comment thereon at a later time.

The Applicants also note, however, that the Office Action rejected independent claims 1, 26 and 29 and dependent claims 2-9, 12-24, 27-28, 30-32 and 35-43 under 35 U.S.C. 102(e) as being anticipated by US Patent Application Publication No 2002/0133273 submitted by Lowrey et al. ("Lowrey"). The Office Action also rejected claims 25 and 44 under 35 U.S.C. 103(a) as being unpatentable over Lowrey in view of US Patent Application Publication No 2004/0039504 submitted by Coffee et al. ("Lowrey"). In addition, the Office Action rejected claims 24 and 43 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure that is not enabling.

Applicant-Initiated Interview

The Applicants thank the Examiner for his time on October 26, 2004 to discuss the outstanding Office Action. As discussed during the interview and noted below, the Applicants submit that US Patent Application Publication No 2002/0133273 does not, as asserted by the Office Action,

disclose a plurality of selectable modular applications, each of which (i) has an associated function that processes data corresponding to at least one vehicle operating characteristic obtained via an on-board unit (ii) is selectable to create a customized system. Consequently, the Applicants submit that the claims are not anticipated, and therefore, are allowable.

In addition, the Applicants also discussed the rejection of claims 24 and 43. During the interview, the Applicants pointed to sections of the specification to show support for the claimed elements that were asserted by the Office Action to not be enabled. As such and as discussed below, the Applicants submit that the claims are enabled, and therefore, allowable.

Section 112 Rejections

Responsive to the rejection of claims 24 and 43 under 35 U.S.C. 112, first paragraph, the Applicants submit that any fair reading of the entire specification more than adequately communicates to the interested public in a meaningful way the claimed element "the plurality of modular applications correlates data between at least two vehicle controllers on the same vehicle." In addition, the Applicants direct the Examiner to paragraph 84 of the present application, which particularly states:

"[i]n another embodiment, the system 100 can view each vehicle 104 as a single entity to allow the user to communicate with multiple ECU's on the same vehicle 104 at the same time. For example, data can be obtained from an Engine ECU and Transmission ECU at the same time, with the resultant data from each controller correlated to the other to add more detail to the data offered to the user."

In view of the foregoing, the Applicants submit that the specification describes the claimed element "the plurality of modular applications correlates data between at least two vehicle controllers on the same vehicle," in such terms that one skilled in the art can make and use the claimed invention. Consequently, the Applicants submit that the rejection of claims 24 and 43 under 35 U.S.C. 112, first paragraph, is unwarranted, and therefore submit that these claims are allowable.

Response to Section 102 Rejections

Response to Rejection of Independent Claims 1, 26 and 29

With respect to independent claims 1, 26 and 29, the Office Action cites *Lowrey* for the proposition that it teaches the combination of element directed (i) a plurality of modular applications, each application having an associated function that processes the data corresponding to said at least one vehicle operating characteristic obtained via the on-board unit; and (ii) an interface that allows selection among the plurality of modular applications to create a customized system. For simplicity, the combination of claimed elements (i) and (ii) may be referred to hereinafter as "the combination of claimed elements directed to a plurality of selectable modular applications." To support this assertion, the Office Action cited to paragraph 40 of *Lowrey*. For convenience, paragraph 40 is reproduced below.

"The antenna typically rests in the vehicle's shade band, disposed just above the dashboard. The antenna 14 radiates the data packet over the airlink 9 to a base station 11 included in a wireless network 4. A host computer system 5 connects to the wireless network 4 and receives the data packets. The host computer system 5, for example, may include multiple computers, software pieces, and other signal-processing and switching equipment, such as routers and digital signal processors. Data are typically transferred from the wireless network 4 to host computer system 5 through a TCP/IP-based connection, or with a dedicated digital leased line (e.g., a frame-relay circuit or a digital line running an X25 protocol). The host computer system 5 also hosts a web site 6 using conventional computer hardware (e.g. computer servers for a database and the web site) and software (e.g., web server and database software). A user accesses the web site 6 through the Internet 7 from a secondary computer system 8. The secondary computer system 8, for example, may be located in an automotive service center."

Although this paragraph discloses a host computer system having "software pieces," and "a web site" that uses software "e.g., web server and database software," it is totally devoid of any disclosure even closely related to the combination of claimed elements directed to the plurality of selectable modular applications. The Applicants also submit that the rest of *Lowrey* does not

disclose such claimed elements, and therefore, submit that *Lowrey* fails to anticipate the claimed invention.

In view of the Examiner Interview of October 26, 2004 and in anticipation of an argument that software used by the web site could be considered to be the plurality of applications, however, the Applicants note that the *Lowrey*, at paragraph 23, defines such software using the term "web page." According to *Lowrey*, at paragraph 23, a web page is:

" a standard, single graphical user interface or 'page' that is hosted on the Internet or world-wide web. Web pages typically include: 1) a 'graphical' component for displaying a user interface (typically written in a computer language called 'HTML' or hypertext mark-up language); an 'application' component that produces functional applications, e.g. sorting and customer registration, for the graphical functions on the page (typically written in, e.g., C++ or Java); and a database component that accesses a relational database (typically written in a database-specific language, e.g. SQL*Plus for Oracle databases). A 'web site' typically includes multiple web pages, many of which are 'linked' together, that are accessed through a series of 'mouse clicks'" (emphasis added).

Thus, the web page of *Lowrey* is an interface that includes (i) a graphical-user interface component for displaying a user interface, (ii) an application component that produces functional applications for the graphical functions on the web page, and (iii) a database component that accesses a relational database, none of which explicitly or inherently describe the combination of claimed elements directed to the plurality of selectable modular applications. See also *Lowrey* at paragraphs 15-17.

Instead, the Applicants submit that the web page in the cited section of *Lowrey* is merely an interface for (i) logging into its system, (ii) formatting (e.g., sorting) vehicle information for display, and (iii) displaying the vehicle information and/or entering information into its system. That is, the web page of "*Lowrey*" is not a plurality of applications nor does it have an associated function that processes the data corresponding to the at least one vehicle operating characteristic.

In view of the assertion that the web page of *Lowrey* is not the claimed plurality of applications, the Applicants also submit that, although the web page is an interface, it is not the

claimed element "an interface that allows selection among the plurality of modular applications to create a customized system." Moreover, the Applicants submit that despite Lowrey stating that the web page includes an application component, which, as noted, is not the claimed plurality of applications, nothing in Lowrey discloses or suggests that the application component is selectable via the web page. Rather, Lowrey indicates that the application component of the web pages is predetermined and not customized based on an associated function for processing the data corresponding to the at least one vehicle operating characteristic. See, e.g., Lowrey at paragraphs 45-81. Thus, the Applicants submit that the web page of Lowrey is not the combination of claimed elements directed to a plurality of selectable modular applications.

In further view of the Examiner Interview of October 26, 2004 and in anticipation of an argument that the "schema" of Lowrey defines the combination of claimed elements directed to a plurality of selectable modular applications, the Applicants also refer to paragraphs 42 and 43 of Lowrey. In paragraph 42, Lowrey states:

" the wireless appliance includes a data-collection component that, in turn, includes a microcontroller that has software and a data-collection 'schema' loaded in the microcontroller's memory. The schema is essentially a 'map' that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory. A schema specific to a given type of vehicle is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle (step 22 in FIG. 2). During operation, the appliance communicates with the vehicle's engine computer as described above (step 23). The appliance collects diagnostic data defined by the schema, formats these data in a data packet, and then sends an outgoing packet over the airlink to a wireless network (step 24). The network transfers the data packet to the host computer system as described above (step 25). There, the host computer system analyzes the data packet using a 'map' that corresponds to the schema to generate a data set (step 26). Every schema has a corresponding map. The map includes, for example, a list of the collected data, an acronym and unit for each datum. The data set, acronym, and units are then displayed on the web site (step 28) where they can be viewed by any 'registered' user (i.e., a user with a username and corresponding password) with Internet connectivity" (emphasis added).

As can be readily discerned from this paragraph, data transferred from the wireless appliance to the host computer is merely reformatted in accordance with a particular schema, and then displayed on the web page where it can be viewed by any 'registered' user with Internet connectivity. This schema is different from the claimed elements directed to a plurality of selectable modular applications. This is because the schema, as defined by *Lowrey*, "is essentially a 'map' that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory," and not the claimed plurality of applications. In other words, the Applicants submit that the schema of *Lowrey* is a map and not an application; much less an application that has an associated function that processes data corresponding to at least one vehicle operating characteristic obtained via an on-board unit.

And although *Lowrey*, at paragraph 43 states that "[a] technician uses the web site to select a new schema (step 32) and then sends an incoming data packet that includes a new schema over the wireless network to the wireless appliance included in the vehicle being diagnosed (step 34)," the new schema merely "extract[s] a revised set of data from the vehicle's engine computer, or send out data at a revised frequency (step 38) [and] [o]nce these data are collected, the method 21 can then be repeated as described above to further diagnose the vehicle." See *Id.* at paragraph 43. Thus, the Applicants submit that the schema of *Lowrey* is not the combination of claimed elements directed to a plurality of selectable modular applications.

In yet further view of the Examiner Interview of October 26, 2004 and in anticipation of an argument that the algorithms noted in paragraphs 82 and 83 of *Lowrey* disclose the combination of claimed elements directed to a plurality of selectable modular applications, the Applicants note that *Lowrey* merely states that "the web pages also support a wide range of algorithms that can be used to analyze data once it is extracted from the data packets," and then goes on to give examples of

certain types of algorithms that could be supported by the web pages. See *Lowrey* at paragraph 81 (emphasis added). The Applicants note, however, that *Lowrey* lacks any supporting disclosure support to show (i) that more than one (i.e., a plurality) of these algorithms is available at any time, and (ii) more particularly, that any of them is selectable via the interface. Thus, the Applicants submit that the algorithms of *Lowrey* do not disclose or suggest the combination of claimed elements directed to a plurality of selectable modular applications.

Unlike *Lowrey*, the combination of claimed elements directed to a plurality of selectable modular applications provides benefits over prior art including, for example, that it "allows for monitoring and control of a vehicle fleet by displaying and controlling data according to a user's customized specifications." See *the present application* at paragraph 21.

In one embodiment, for example, the modular applications, which are selectable via the interface, may interact with core data and services so that vehicle parameters can be monitored, analyzed and displayed in a format that is meaningful to a particular user and/or a particular industry." *Id.* This flexibility allows different users and/or industries to use the same overall system for vehicle and component monitoring despite their disparate vehicle data requirements. *Id.* "To ensure that the user receives data that is meaningful to the user's specific application, the user interface can be customized to operate applications selected by the user." *Id.* at paragraph 22 (reference numbers removed). "Different types of users may select different applications as a customized application group to accommodate their specific data monitoring and reporting needs applicable to their own business." *Id.* (reference numbers removed).

"For example a dealer/repair facility may select from the offered applications, vehicle configuration, scheduled maintenance, remote diagnostics, and concierge services as its application group, while a truck manufacturer may select a different collection of applications, such as warranty

service/campaign support, vehicle history, and guided diagnostics." *Id.* at paragraph 23 (reference numbers removed). "By offering a variety of modular applications that can be selected and combined according to the needs of a particular user, the same infrastructure can be customized and used by different users for different purposes with little or no modification of the infrastructure itself." *Id.* "Further, by allowing users to access third-party applications through the same infrastructure as system supplied applications, the system can leverage services not provided by the system itself, further increasing flexibility and adaptability." *Id.*

Clearly, *Lowrey* does not disclose such benefits over the prior art because *Lowrey* is not concerned with the combination of claimed elements directed to a plurality of selectable modular applications. Accordingly, the Applicants submit that *Lowrey* describes a system and method that is different from the present claims. In light of the foregoing, the Applicants submit that the independent claims 1, 26 and 29 are not anticipated by the *Lowrey* reference, and therefore, are allowable. As dependents, claims 2-25, 27-28 and 30-44 necessarily include the elements of the independent claims from which they depend, and thus, the Applicants submit that these claims are allowable for the same reasons.

Response to Rejection of Dependent Claim 18

With respect to the rejection of dependent claim 18, the Applicants, as noted above, submit that *Lowrey* does not disclose the combination of claimed elements directed to a plurality of selectable modular applications. Thus, the Applicants submit that *Lowrey* therefore does not disclose "a server linking the on board unit to the interface via the modular applications," and therefore claim 18 is allowable.

Response to Section 103 Rejections

According to M.P.E.P. § 2143, in order to establish the required prima facie case of obviousness of a claimed invention by applying a combination of references, (1) the proposed combination must teach or suggest all of the elements of the claimed invention, and (2) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. The Applicant respectfully traverses the Office Action rejections of these claims based on the following arguments.

The Proposed Combination Does Not Teach All the Elements

With respect to the rejection of dependent claims 25 and 44, the Office Action has proffered the same rejection for both of these claims. The Office Action cited the combination of *Lowrey* and *Coffee* for the proposition that they disclose the claimed invention, including the claimed elements directed to a plurality of selectable modular applications, wherein at least one of the modular applications establishes a setting for a plurality of vehicles with one command sent via the interface.

To this end, the Office Action has cited to paragraph 40 of *Lowrey* for the proposition that it teaches the combination of element directed to the combination of claimed elements directed to a plurality of selectable modular applications. The Applicants note, however, that the Office Action does not rely on *Coffee* for such teaching. The Office Action cites *Coffee* only for the proposition that it teaches the combination of claimed elements directed to "wherein at least one of the modular applications establishes a setting for a plurality of vehicles with one command sent via the interface."

The Applicants incorporate herein by reference the discussion from under the heading "Response to Rejection of Independent Claims 1, 26 and 29." In light of the discussion above, the Applicants submit that (1) *Lowrey* does not disclose explicitly or inherently the combination of

claimed elements directed to a plurality of selectable modular applications, and (2) *Coffee* likewise fails to disclose such subject matter. Thus, the Applicants submit that these references either alone or combined, fail to disclose or suggest, all of the claimed elements.

The Applicants therefore submit that the Office Action has failed to meet the initial burden of providing a *prima facie* case of obviousness respect to the claims 25, and 44. Consequently, the Applicant submits that claims 25 and 44 are allowable

Failure to Provide an Objective Reason to Combine References

In addition to other requirements, in order to establish the required *prima facie* case of obviousness of a claimed invention by applying a combination of references, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. See M.P.E.P. § 2143.01.

In addition, "a statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references." *Id.*

With respect to dependent claims 25, and 44, the Applicants respectfully submits that the Office Action has not provided a legitimate reference or statement showing some suggestion of the desirability of doing what the Applicant has done. The Office Action, without providing any reference or convincing reasoning and using impermissible hindsight and language paralleling the above-quoted

language held to be insufficient to establish a *prima facie* case of obviousness, states "it would have been obvious for one of ordinary skill in the art at the time of the invention was made to use the broadcast message of Coffee et al. in the invention of Lowrey et al. because such modification would provide a way to organize communication."

As used by the Office Action, combining the references for the purpose of "provid[ing] a way to organize communication" does not provide a suggestion or motivation to combine the teachings of Lowrey and Coffee to obtain the Applicants' invention. Specifically, simply stating that the combination "provides a way to organize communication" does not point to combining the supposed elements contained in Lowrey and the supposed elements contained in Coffee to obtain the Applicants' invention. Thus, the Office Action has not provided a well-reasoned basis for the combination. Moreover, "provid[ing] a way to organize communication" does not show how the teachings of Lowrey can be combined with teachings of COffee to produce the claimed invention.

At most, "provid[ing] a way to organize communication" provides a reason for applying for a patent in the first place. That is, many patentable inventions are based on the recognition that a specific combination of elements (which appear individually, but not in combination, in the prior art) will result in an improved system. Thus, because of the absence of any evidence of a motivating force, the Applicants submit that the Office Action has failed to meet the initial burden of providing a *prima facie* case of obviousness. The Applicants submit therefore that claims 25 and 44 are allowable.

CONCLUSION

The Applicants submit that the application is in good and proper form for allowance, and respectfully request the Examiner to pass this application to issue. If, in the opinion of the Examiner, a telephone

conference would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney, at 312-913-3304.

Respectfully submitted,

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